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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/586,129	07/17/2006	Takayasu Ohara	MAT-8869US	1818

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EXAMINER	
DANG, KET D	

ART UNIT	PAPER NUMBER
3742	

MAIL DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/586,129	OHARA ET AL.	
	Examiner	Art Unit	
	KET D. DANG	3742	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *05 May 2010*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,2 and 4-14* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-2 and 4-14* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *17 July 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This office action is responsive to the Applicant Arguments/Remarks filed on May 5, 2010. Thus, claims 1-2 and 4-14 are presently pending in this application.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1-2, 4-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Haniya et al. (US Pub. No. 20040261562 A1) in view of Takayanagi (JP 408057648 A) and further in view of Terada et al. (US 6250174 B1).

4. Regarding claims 1, 9, and 11, Haniya et al. disclose an industrial robot (abstract) capable of being used in a floor-mounted state (see figure 1), comprising: a base for installation 1 (fig. 1); a first arm rotatably attached to the base 2 (fig. 1); a second arm being pivotable with respect to the first arm 4 (fig. 1); a third arm pivotably attached to the second arm 5 (fig. 1); a wire feeder 11 (fig. 1) provided to the second arm and being rotatable around a rotation axis (see R-axis rotation in figure 1); a welding torch 9 (fig. 1); and a torch cable 12 (fig. 1) for feeding a welding wire to the welding torch, the torch cable coupled to the wire feeder (page 2, paragraph 0035); a fourth arm 3 (fig. 1) attached to one side face of the first arm 2 (fig. 1) and one side face

of the second arm 4 (fig. 1), the fourth arm 3 (fig. 1) pivotable with respect to the first arm 2 (fig. 1) and the second arm 4 (fig. 1) (see figure 1, para. 0033-0035).

With respect to claims 4 and 12, Haniya discloses a rotation fixing part for fixing a rotation angle of the wire feeder (para. 0013).

With respect to claims 6 and 14, Haniya discloses wherein at least a part of the wire feeder 11 (fig. 1) is located on the second arm 4 (fig. 1) (2^{nd} arm is the same as upper arm).

With respect to claim 7, Haniya discloses a fourth arm 3 (fig. 1) pivotably attached to the first arm and the second arm 4 (fig. 1).

With respect to claim 8, Haniya discloses wherein the fourth arm 3 (fig. 1) is attached to one side face of the first arm 2 (fig. 1) and one side face of the second arm 4 (fig. 1).

Haniya et al. discloses all of the limitations of the claimed invention, except for a ceiling-mounted state; a feeder cable electrically coupling, wherein the rotation axis is composed of a rotating hollow pipe shaft having a first end and a second end opposite the first end, and the feeder cable passes through the rotating hollow pipe shaft from the first end to the second end; and wherein the wire feeder is located opposite to the fourth arm relatively to a rotating axis of the first arm.

However, a ceiling-mounted state and wherein the wire feeder is located opposite to the fourth arm relatively to a rotating axis of the first arm are known in the art. Takayanagi, for example, teaches a ceiling-mounted state (see figure 1; para. 0017); wherein the wire feeder 7 (fig. 1) is located opposite to the third arm 33 (fig. 1)

relatively to a rotating axis of the first arm 31 (fig. 1). Takayanagi further teaches such a configuration provides a stability of the feeding device on the side and maintaining the state of curving smoothly with small curvature (para. 0017). It would have been obvious to one of ordinary skill in the art to modify Haniya with a ceiling-mounted state and wherein the wire feeder is located opposite to the third arm relatively to a rotating axis of the first arm of Takayanagi in order to provide a stability of the feeding device on the side and maintaining the state of curving smoothly with small curvature.

With respect to claims 2 and 10, Takayanagi discloses a fixing device 76 (fig. 1) including the rotation axis and provided to the second arm 32 (fig. 1) (para. 0014, 0008-0009, and 0018).

With respect to claims 5 and 13, Takayanagi discloses wherein a position to which the wire feeder 7 (fig. 2) is attached is offset to a position apart from the third arm 33 (fig. 2) (see figure 2 for the position of the wire feeder is attached to the side of the 3rd arm).

Similarly, a feeder cable electrically, wherein the rotation axis is composed of a rotating hollow pipe shaft having a first end and a second end opposite the first end, and the feeder cable passes through the rotating hollow pipe shaft from the first end to the second end is known in the art. Terada et al., for example, teaches a feeder cable electrically CB (fig. 1), wherein the rotation axis is composed of a rotating hollow pipe shaft having a first end and a second end opposite the first end, and the feeder cable passes through the rotating hollow pipe shaft from the first end to the second end (abstract; col. 1, lines 10-35; col. 2, lines 57-59; col. 3, lines 24 – col. 5, lines 28).

Terada et al. further teaches such a configuration provides a means that there will be no problem such as the cable CB becoming entangled therein (col. 4, lines 15-24). It would have been obvious to one of ordinary skill in the art to modify Haniya with the features above of Terada in order to provide no problem such as the cable CB becoming entangled therein.

Response to Arguments

5. Applicant's arguments with respect to claims 1 and 9 have been considered but are moot in view of the new ground(s) of rejection. However, upon further consideration, a new ground(s) of rejection is made in view of Terada et al. (US 6250174 B1).

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Nihei et al. (JP 07108485 A) discloses rotary joint of robot and the like.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KET D. DANG whose telephone number is (571) 270-7827. The examiner can normally be reached on Monday - Friday, 7:30 - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoang Tu can be reached on (571) 272-4780. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/KET D DANG/
Examiner, Art Unit 3742
July 12, 2010
/TU B HOANG/
Supervisory Patent Examiner, Art Unit 3742